

Claims

1. A continuous pickling method comprising performing pickling of a traveling steel strip while supplying an acid solution to at least two pickling tanks of a plurality of pickling tanks making up a continuous pickling apparatus, characterized n
5 that

a total amount of acid solution to be supplied is determined based on a scale thickness, width and traveling speed of the steel strip, and

a distribution ratio of the acid solution supply for each of the at least two pickling tanks is determined based on a pickling pattern for the steel strip and the
10 traveling speed of the steel strip,

thereby controlling the amount of acid solution which is supplied to each of the at least two pickling tanks.

2. A continuous pickling method as set forth in claim 1, characterized in that the distribution ratio of the acid solution supply is determined using a value selected
15 from a plurality of predetermined set values.

3. A continuous pickling method as set forth in claim 1 or claim 2, characterized in that the value for the scale thickness is selected from a plurality of set values which are previously determined based on the steel type of the steel strip.

4. A continuous pickling method as set forth in claim 1 or claim 2,
20 characterized in that the distribution ratio of the acid solution supply is determined using a value selected from a plurality of predetermined set values based on the traveling speed of the steel strip.

5. A continuous pickling method comprising performing pickling of a traveling steel strip while supplying an acid solution to at least two pickling tanks of a plurality of pickling tanks making up a continuous pickling apparatus, characterized
25 in that

a total amount of acid solution to be supplied is determined based on a scale thickness, width and traveling speed of the steel strip, and a distribution ratio of the acid solution supply for the at least two pickling tanks is determined based on a pickling pattern of the steel strip and the traveling speed of the steel strip, thereby
5 controlling the amount of acid solution which is supplied to each of the at least two pickling tanks, and

a correction value based on the deviation of a measured value of the concentration of the pickling solution in each of the at least two pickling tanks from a set value is added to the supply amount of acid solution.

10 6. A continuous pickling method as set forth in claim 5, wherein the predetermined set value for the scale thickness and/or for the distribution ratio of the acid solution supply is corrected and set based on a correction value of control which is obtained by addition with respect to the supply of the pickling solution.

15 7. A continuous pickling method as set forth in claim 1 or claim 5, wherein the at least two pickling tanks include at least a final pickling tank.

8. A continuous pickling apparatus for performing pickling of a traveling steel strip while supplying an acid solution to at least two pickling tanks of a plurality of pickling tanks making up a continuous pickling apparatus, characterized in that a total amount of acid solution to be supplied is determined based on a scale thickness, width
20 and traveling speed of the steel strip, and a distribution ratio of the acid solution supply to the at least two pickling tanks is determined based on a pickling pattern of the steel strip and the traveling speed of the steel strip, thereby controlling the amount of acid solution which is supplied to each of the at least two pickling tanks.

25 9. A continuous pickling apparatus as set forth in claim 8, characterized in that the distribution ratio of the acid solution supply is determined using a value selected from a plurality of predetermined set values.

10. A continuous pickling apparatus as set forth in claim 8 or claim 9, characterized in that the value for the scale thickness is selected from a plurality of set values which are previously determined based on the steel type of the steel strip.

11. A continuous pickling apparatus as set forth in claim 8 or claim 9,
5 characterized in that the distribution ratio of the acid solution supply is determined using a value selected from a plurality of predetermined set values based on the traveling speed of the steel strip.

12. A continuous pickling apparatus for performing pickling of a traveling steel strip while supplying an acid solution to at least two pickling tanks of a plurality
10 of pickling tanks making up a continuous pickling apparatus, characterized in that a total amount of acid solution to be supplied is determined based on a scale thickness, width and traveling speed of the steel strip, and a distribution ratio of the acid solution supply for the at least two pickling tanks is determined based on a pickling pattern of the steel strip and the traveling speed of the steel strip, thereby
15 controlling the amount of acid solution which is supplied to each of the at least two pickling tanks, and
a correction value based on the deviation of a measured value of the concentration of the pickling solution in each of the at least two pickling tanks from a set value is added to the supply amount of acid solution.

20 13. A continuous pickling apparatus as set forth in claim 12, wherein the predetermined set value for the scale thickness and/or for the distribution ratio of the acid solution supply is corrected and set based on a correction value of control which is obtained by addition with respect to the supply of the pickling solution.

14. A continuous pickling apparatus as set forth in claim 8 or claim 11,
25 wherein the at least two pickling tanks include at least a final pickling tank.